

(19)



JAPANESE PATENT OFFICE

## PATENT ABSTRACTS OF JAPAN

(11) Publication number: 55156299 A  
 (43) Date of publication of application: 05.12.1980

(51) Int. Cl. F04D 29/46  
 F04D 27/00

(21) Application number: 55057822  
 (22) Date of filing: 02.05.1980

(71) Applicant: HITACHI LTD  
 (72) Inventor: NAKAYAMA YOSHIHIKO

**(54) CAPACITY REGULATOR OF CENTRIFUGAL COMPRESSOR****(57) Abstract:**

**PURPOSE:** To securely regulate capacity of a centrifugal compressor by providing with one valve on the suction side which is combined with an eccentric cam, and driving shafts which are respectively connected with a cam guide at one end and a diffuser at the other, thereby simplifying construction.

**CONSTITUTION:** When a valve 1 is opened, a movable diffuser 5 is shifted on account of pressure difference between both ends of each driving shaft 4a, 4b. In principle, right and left ends of each driving shaft 4a, 4b are respectively subjected to a discharge pressure from a compressor and a suction pressure, so that driving shafts 4a, 4b are constantly forced to the left side during operation of the compressor. When the valve 1 is opened, the movable diffuser 5 is opened to an extent according to the opening of the valve. Eccentric cam 2a, 2b transmit force in the direction of closing the movable diffuser 5. Said constitution may reduce

the number of parts into simple construction and provide exact regulation of capacity.

COPYRIGHT: (C)1980,JPO&Japio

